

**FIELD/LABORATORY SITE SAMPLING PLAN FOR
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF ENVIRONMENTAL COMPLIANCE
SUIVEILLANCE DIVISION**

**ALMONASTER PROJECT
FIELD SAMPLING EVENT
UNAUTHORIZED DISPOSAL SITES AND SALVAGE YARDS
LOCATED WITH IN LDEQ'S SOUTHEAST LOUISIANA REGION**

**Prepared by:
Roy F. Varnado, Jr.
LDEQ
111 New Center Drive
Lafayette, Louisiana 70508**

March 16, 2007

1.0 Analysis Outline

1.1 Parameters and Analytical Methods

The sampling and analysis event detailed by this plan concerns the collection of surface soil samples (0-12 inches in depth) at various salvage yards and unauthorized dump sites located in the Orleans Parish (Old Gentilly/Almonaster Corridor). Samples of discarded materials that may be discovered at the unauthorized dump sites may also be collected to determine the identity of these substances for regulatory compliance purposes. It is expected that any one site may contain both salvage operations and unauthorized disposal.

The sampling event will take place on Thursday, March 22 and 23, 2007. If sample collection cannot be completed on Friday March 23, 2007, the sampling event will continue on a as need basis until completion.

The soil samples will be analyzed using U.S. EPA Methods for Total Petroleum Hydrocarbons - diesel range, Total Petroleum Hydrocarbons – oil range, Total Petroleum Hydrocarbons – gasoline range, total mercury, and percent moisture (to accompany Encore samples). Additional analysis may be conducted on a case by case to be determination by the lead inspector. For example, the lead inspector may choose to collect sample of any free liquids sitting on top of the contaminated area or discharging from one of the car crushing units.

Analysis to be performed of the discarded materials that may be discovered at the unauthorized dump sites will be determined by the lead inspector. This determination will be primarily based on but not limited to visual observation, information collected during the inspection of the site, interviews of potentially responsible parties and/or witnesses, field screening data, and the experience and expertise of the lead inspector.

All samples will be collected by Surveillance personnel as described in Section 2.1 of this plan.

1.2 Sample Containers

All containers will be prepared by LDEQ's laboratory in a manner that will allow the laboratory to certify the containers as being free of all substances to be analyzed. The container requirements are listed in Table 1 Sample Container Requirements.

A sampling team member will inspect the containers, COC documents, and this field/laboratory sampling plan to ensure compliance with all requests within this plan. All deviations will be noted and communicated by phone to Roy Varnado (337 501-3981) before the containers are used.

TABLE 1. SAMPLE CONTAINER REQUIREMENTS

<u>Parameter</u>	<u>Number and Type of Container</u>	<u>Volume</u>	<u>Preservative</u>
Total Volatiles liquids 8260 - recap	100 VOA vials	40ml	HCl to pH <2
Total Petroleum Hydrocarbons – D & O Percent moisture	100 glass jars	4oz	4°C
Total Volatiles- soils 8260-recap	150 Encore	5 grams	4°C
Total Metals Mercury & lead	50 clear glass jars	8oz	4°C

LDEQ's laboratory will provide sample container and cooler custody seals to be used in the field to ensure sample integrity. These containers will be picked up at the laboratory by LDEQ personnel on March 21, 2007 and remain in these individuals custody until released to lead inspectors.

1.3 Chain of Custody (COC) Documentation

The request for sample document will be initiated by LDEQ Surveillance personal. This document will be signed off by laboratory personnel upon delivery of sample containers to surveillance personnel. This document will be receipt for sample containers received from the laboratory and chain of custody for transport into the field. Certification-of-clean analysis for the sample containers will also be provided by LDEQ laboratory.

The COC documentation will be made in the field to facilitate partial shipment of samples to the laboratory. In the field each sample collected will be listed individually on the chain of custody documentation. Information pertaining to each sample collected will include: sample identification, date collected, time collected, matrix, number of containers collected, parameters requested, and any general comments about the sample that the sampler deems appropriate.

The COC form will accompany the samples during transport in the field, during transport back to the laboratory, and through all transfers in the laboratory. The COC document will be signed for each transfer of the samples. Custody seals will be securely attached to each sample and each cooler prior to shipment. A minimum of one COC document must accompany each cooler.

The laboratory will supply sample and cooler custody seals to ensure the integrity of the sample containers delivered to LDEQ. LDEQ will use its own custody seal on each sample and cooler prior to shipment to the laboratory.

1.4 Special Laboratory Instructions

A copy of the method detection limit (MDL) including all of the project-specified target compounds will be included in the data package received for review. The MDL study and the analysis of the samples in this project should be performed by the same analyst on the same instrument.

LDEQ Lab will prepare one purgeable volatile trip blank consisting of three 40 mL vials for each ice chest. The trip blank will consist of three (3) 40 mL vials from the same lot of containers used for the collection of the field samples. The vials will be filled with purged volatile analyte-free water, preserved with HCL to pH <2, capped with no headspace and labeled "Trip Blank".

LDEQ Lab will prepare five (5) gallons of purged volatile analyte-free water that will be used to prepare the field (rinsate) blanks. The water is to be from the same lot of water used for the trip blanks. The containers must be verified by the laboratory as being free of the volatile organic compounds specified for this project. The container must be labeled volatile analyte-free water.

Matrix spike and matrix spike duplicate analyses will be performed on samples collected during this sample project and in accordance with the laboratory's QA/QC protocol.

2.0 Sampling Program

2.1 Sampling Procedure

All samples will be collected on Thursday March 22, 2007 and Friday March 23, 2007 by two LDEQ sampling teams headed by Roy Varnado and Chris Simms.

Sample location and number of samples to be collected will be determined after site inspection and site evaluation is complete.

All sampling equipment must be properly decontaminated prior to use. Sampling equipment will be decontaminated between each sample collection. Hexane solvent, Alconox soap or Dawn Soap, and deionized water will be used in the decontamination process.

Total Petroleum Hydrocarbons – D & O and percent moisture samples will consist of one (1) 4 oz. glass jar with Teflon lid.

Total volatile soil samples will consist of four (4) Encore sample containers.

Total mercury and lead samples will consist of one (1) 8 oz. glass jar with Teflon lid.

Sample collection and techniques will be performed in accordance with LDEQ's Surveillance Division's "Sampling of Hazardous Materials" SOP under the direct supervision of the lead inspector. Any deviation will be noted and justified by the lead inspector.

2.2 Field Quality Control Program

One duplicate field samples will be collected for every 10 samples and/or for each matrix sampled at each facility.

One rinsate samples will be collected between each sample site.

Trip blanks will remain in each ice chest.

All samples will be labeled sealed with custody tape and placed in a sample cooler with wet ice immediately following sample collection. Additional ice will be added to the ice chest as needed in order to maintain a temperature not to exceed $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$. The ice chest will then be sealed with custody tape.

All sample collection information must be recorded in ink in a field log that will serve as a record for each sample. This information will be transferred and recorded on LDEQ's Field Interview Form and/or inspection narrative.

2.3 Sample Treatment in the Field

All samples will be collected and placed in a chilled cooler with wet ice. The samples will be shipped to the laboratory at a temperature not to exceed $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$.

2.4 Shipment Procedures and Field Contact

Samples collected for this project will be in the custody of LDEQ surveillance personnel at all times. Chain of Custody will be completed and accompany the samples at all time until arrival to the laboratory. Samples will be shipped directly to LDEQ's laboratory in Baton Rouge by a designed LDEQ inspector.

A copy of the completed chain of custody will be provided to the facility representative as a receipt for sample.

3.0 Spilt Samples

Split samples will be offered to the facility representative. All split samples will be collected by LDEQ personnel under the supervision of the lead inspector.